

ABSTRACT

Background. Periodontal dressing is used for periodontal surgery, especially in cases of open wounds such as gingivectomy, gingivoplasty, and pericoronal flap. The purpose of using periodontal dressing is only to minimize the risk of postoperative complications. While therapeutic effects such as stopping bleeding, gingival swelling and wound healing are not owned. **Aim.** Knowing the role of lactoferrin in the expression of FGF2 and VEGF in the process of healing gingival wounds. **Method.** A sample of 28 male Wistar (*Rattus norvegicus*) rats were divided into 4 treatment groups. All samples were incised with a full thickness method on the gingival anterior region of the mandible. In group 1 each sample will be given 50 μ L of phosphate buffer saline solution once after gingival injury is made. In group 2, the concentration of lactoferrin was 10 μ g/ml, group 3 with lactoferrin 20 μ g/ml and group 4 with lactoferrin 40 μ g/ml. On the third day, the rats were sacrificed to take the gingival tissue on the mandible. **Result.** Overall the group given lactoferrin showed higher FGF2 and VEGF expression compared to the control group. The lactoferrin group concentration of 40 μ g/ml showed a higher increase in FGF2 and VEGF expression than the 10 and 20 μ g/ml lactoferrin groups. **Conclusion.** Lactoferrin concentration of 40 μ g/ml can accelerate the healing process of gingival wounds by increasing FGF2 and VEGF expression.

Keywords : Lactoferrin, FGF2, VEGF